LPDES PERMIT NO. LA0004324, AI No. 32494

LPDES FACT SHEET and RATIONALE
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

I. **Company/Facility Name:** Entergy New Orleans, Inc.
Michoud Generating Plant
P.O. Box 61000, Mail Unit L-ENT-5E
New Orleans, LA 70161

II. **Issuing Office:** Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
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III. **Prepared By:** Kelli Hamilton
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Date Prepared: December 16, 2008

IV. **Permit Action/Status:**

A. Reason For Permit Action:

Proposed reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

B. LPDES permit - LPDES permit effective date: July 1, 2003
LPDES permit expiration date: June 30, 2008
EPA has not retained enforcement authority.

C. Application received on December 27, 2007

V. **Facility Information:**

A. Location - 3601 Paris Road in New Orleans, Orleans Parish

B. Applicant Activity - According to the application, Entergy New Orleans, Inc., Michoud Generating Plant, is a three-unit steam electric generating facility in operation since 1957 with a net output of 918 megawatts (MW) of electricity.

C. Technology Basis - LAC 33:IX.4903

Guideline	Reference
Steam Electric Power Generating Point Source Category	40 CFR 423

Other sources of technology based limits:
LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)
LPDES permit LAG670000, effective February 1, 2003
Best Professional Judgement

D. Fee Rate -
1. Fee Rating Facility Type: major
2. Complexity Type: III
3. Wastewater Type: I
4. SIC code: 4911

VI. Receiving Waters: Intracoastal Waterway

1. TSS (15%), mg/L: 6.2
2. Average Hardness, mg/L $CaCO_3$: 400
3. Critical Flow, cfs: 7,855
4. Mixing Zone Fraction: 1/3
5. Harmonic Mean Flow, cfs: 23,565
6. River Basin: Lake Pontchartrain, Segment No. 041601
7. Designated Uses:
   The designated uses are primary contact recreation, secondary contact recreation, and fish and wildlife propagation, and oyster propagation.

Information based on the following: LAC 33:IX Chapter 11; Recommendation(s) from the Engineering Section. **Hardness and 15% TSS data come from monitoring station #109 on Chef Menteur Pass at Chef Menteur.** The average hardness of the waterbody was determined to be 1,031.66 mg/l. However, according to the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, Water Quality Management Plan, Volume 3, "the maximum hardness shall be 400 mg/l used in hardness dependent metal criteria calculations in accordance with 40 CFR 131.36(c)(4)(i)."

VII. Outfall Information:

Outfall 001

A. Type of wastewater - the continuous discharge of once through non-contact cooling water from Unit 1, Unit 2, and Unit 3; and previously monitored low volume wastewater

B. Location - at the point of discharge from the Michoud Discharge Water Canal at Latitude 30°0'29", Longitude 89°56'54".

C. Treatment - screening and chlorination

D. Flow - 775 MGD

E. Receiving waters - Intracoastal Waterway

F. Basin and segment - Lake Pontchartrain Basin, Segment 041601

Outfall 101

A. Type of wastewater - the intermittent discharge of low volume wastewaters as defined by 40 CFR 423 including wastewater from the pH pond (reverse osmosis reject wastewater, reverse osmosis water, demineralizer/regeneration water); stormwater from the north oil storage area and other portions of the plant property north of the generation units including the switchyard; and maintenance wastewaters including fire system wastewater and previously monitored hydrostatic test water

B. Location - at the point of discharge from the east final equalization pond prior to combining with Outfall 001 at Latitude 30°0'37", Longitude 89°56'0"

C. Treatment - equalization and sedimentation

D. Flow - 0.359 MGD

E. Receiving waters - Outfall 001

F. Basin and segment - Lake Pontchartrain Basin, Segment 041601

Outfall 002

A. Type of wastewater - the intermittent discharge of low volume wastewaters as defined by 40 CFR 423 including wastewater from the boiler blowdown pond; stormwater from the south oil storage area and other portions of the plant property north of the generation units including the switchyard; maintenance wastewaters including fire system test wastewater and previously monitored hydrostatic test water; and previously monitored metal cleaning wastewater

B. Location -at the point of discharge from the west final equalization pond at Latitude 30°0'24", Longitude 89°56'18"

C. Treatment - equalization and sedimentation

D. Flow - 0.451 MGD

E. Receiving waters - Intracoastal Waterway

F. Basin and segment - Lake Pontchartrain Basin, Segment 041601

Outfall 102

A. Type of wastewater - the intermittent discharge of metal cleaning wastewaters (chemical and non-chemical)

B. Location - at the point of discharge from the boiler cleaning water pond prior to combing with Outfall 002 at Latitude 30°0'28", Longitude 89°56'18".

C. Treatment - precipitation, sedimentation, flocculation, coagulation, and filtration

D. Flow - 0.035 MGD

E. Receiving waters - Intracoastal Waterway

F. Basin and segment - Lake Pontchartrain Basin, Segment 041601

Outfall 107

A. Type of wastewater - the intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment

B. Location - at the point of discharge from the pipe, tank, vessel, and/or equipment being tested

C. Treatment - none

D. Flow - intermittent

E. Receiving waters - Intracoastal Waterway

F. Basin and segment - Lake Pontchartrain Basin, Segment 041601

VIII. Previous Effluent Limitations:

Outfall 001:

Pollutant	Limitation Mo.Avg:Daily Max (lb/day)	Limitation Mo.Avg:Daily Max (mg/l)	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow	Report:Report		Daily	Estimate
Temperature	---:---	111:120	once/2hours	Record
Total Residual Chlorine	---:---	---:0.2	1/week	Grab
Acute Biomonitoring		Report:Report	1/quarter	24-hr composite

Outfall 101:

Pollutant	Limitation Mo.Avg:Daily Max (lb/day)	Limitation Mo.Avg:Daily Max (mg/l)	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow	Report:Report		1/day	Estimate
TOC	---:---	---:50	1/week	Grab
TSS	---:---	30:100	1/week	Grab
Oil & Grease	---:---	15:20	1/week	Grab
pH (s.u.)		6.0:9.0 (min:max)	1/week	Grab

Outfall 002:

Pollutant	Limitation Mo.Avg:Daily Max (lb/day)	Limitation Mo.Avg:Daily Max (mg/l)	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow	Report:Report		1/day	Estimate
TOC	---:---	---:50	1/week	Grab
TSS	---:---	30:100	1/week	Grab
Oil & Grease	---:---	15:20	1/week	Grab
pH (s.u.)		6.0:9.0 (min:max)	1/week	Grab

Outfall 102:

Pollutant	Limitation Mo.Avg:Daily Max (lb/day)	Limitation Mo.Avg:Daily Max (mg/l)	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
Flow	Report:Report		1/day	Estimate
Total Copper	---:---	1.0:1.0	1/week	Grab
Total Iron	---:---	1.0:1.0	1/week	Grab

IX. Proposed Permit Limits:

The specific effluent limitations and/or conditions will be found in the draft permit. Development and calculation of permit limits are detailed in the Permit Limit Rationale section below.

Summary of Proposed Changes From the Current LPDES Permit:

A. Outfall 107 Hydrostatic test water has been added to the permit.

B. Biomonitoring is Chronic Marine.

C. The subsegment has been corrected to be 041601.

D. Part II conditions for implementation of 316(b) Phase II Rule requirements have been placed in the permit.

X. Permit Limit Rationale:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. <u>TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS</u>

Following regulations promulgated at LAC 33:IX.2707.L.2.b, the draft permit limits are based on either technology-based effluent limits pursuant to LAC 33:IX.2707.A or on State water quality standards and requirements pursuant to LAC 33:IX.2707.D, whichever are more stringent.

B. <u>TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS</u>

Regulations promulgated at LAC 33:IX.2707.A require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two. Entergy New Orleans, Inc., Michoud Generating Plant is subject to Best Practicable Control Technology Currently Available (BPT) and Best Available Technology Economically Achievable (BAT) effluent limitation guidelines listed below:

Manufacturing Operation	Guideline
Steam Electric Power Generating Point Source Category	40 CFR 423

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [LAC 33:IX.2715] and to assure compliance with permit limitations [LAC 33:IX.2707.I].

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations and/or specific analytical results from the permittee's application were screened against state water quality numerical standard based limits by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. Calculations, results, and documentation are given in Appendix B.

The following pollutants received water quality based effluent limits:

POLLUTANT(S)
None

Minimum quantification levels (MQL's) for state water quality numerical standards-based effluent limitations are set at the values listed in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. They are also listed in Part II of the permit.

D. MONITORING FREQUENCIES

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity (LAC33:IX.2715) and to assure compliance with permit limitations (LAC33:IX.2707.I). Specific monitoring frequencies per outfall are listed in Section E.

E. OUTFALL SPECIFIC RATIONALE

Outfall 001

1. General Comments

This outfall is the continuous discharge of once through non-contact cooling water from Unit 1, Unit 2, and Unit 3; and previously monitored low volume wastewater.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	Daily
Temperature (°F)	---	---	111	120	once/2 hours
Total Residual Chlorine	---	---	---	0.2	1/week
Biomonitoring	See below	See below	See below	See below	1/quarter

Flow - The current LPDES permit established a reporting requirement for monthly average and daily maximum flow. These requirements are being retained with a daily monitoring frequency. These requirements are consistent with LAC33:IX.2707.I.1.b.

Temperature - The current LPDES permit established a monthly average of 111°F and daily maximum limit of 120°F. These limitations are retained with the same monitoring frequency and sample type of monitoring by recorder.

Total Residual Chlorine - A concentration limit for total residual chlorine of 0.2 mg/L is retained from the previous permit in accordance with 40 CFR 423.13 (BAT) (b) (1). The monitoring frequency of once per week by grab sample is retained from the current LPDES permit. The sample shall be representative of any periodic episodes of chlorination, biocide usage, or other potentially toxic substance discharge on an intermittent basis.

Biomonitoring Requirements - It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall(s) 001 are as follows:

TOXICITY TESTS	FREQUENCY
Chronic static renewal 7-day survival and growth test using Mysidopsis bahia [Method 1007.0]	once/quarter
Chronic static renewal 7-day larval survival and growth test using inland silverside minnow (Menidia beryllina) [Method 1006.0]	once/quarter

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and salinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. The full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.
This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 13%, 17%, 23%, 31%, and 41%. The low-flow effluent concentration (critical dilution) is defined as 31% effluent.

Outfall 002

1. General Comments

This outfall is the intermittent discharge of low volume wastewaters as defined by 40 CFR 423 including wastewater from the boiler blowdown pond; stormwater from the south oil storage area and other portions of the plant property north of the generation units including the switchyard; maintenance wastewaters including fire system test wastewater and previously monitored hydrostatic test water; and previously monitored metal cleaning wastewater.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/day
TOC	---	---	---	50	1/week
TSS	---	---	30	100	1/week
Oil & Grease	---	---	15	20	1/week
pH Standard Units	---	---	6.0 (min)	9.0 (max)	1/week

Flow - The flow requirements for reporting the monthly average flow and the daily maximum flow with the same monitoring frequency of once per day, when discharging have been retained from the current LPDES permit. The daily maximum flow is to be estimated using best engineering judgement. This requirement is consistent with LAC 33:IX.2707.I.1.b.

Total Organic Carbon - The current LPDES permit established a daily maximum limit of 50 mg/L for TOC. These limitations are retained with the same monitoring frequency of once per week by grab sample.

Total Suspended Solids - The current LPDES permit established a monthly average limit of 30 mg/L and a daily maximum limit of 100 mg/L for TSS in accordance with 40 CFR 423.12(b)(3). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Oil & Grease - The current LPDES permit established a monthly average limit of 15 mg/L and a daily maximum limit of 20 mg/L for oil & grease in accordance with 40 CFR 423.12(b)(3). These limitations are retained with the same monitoring frequency of once per week by grab sample.

pH - The current LPDES permit established a minimum limit of 6.0 standard units and a maximum limit of 9.0 standard units for pH in accordance with 40 CFR 423.12(b)(1). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Biomonitoring Requirements - This outfall is an intermittent and infrequent discharge; therefore, biomonitoring will not be required.

Internal Outfalls

In accordance with LAC33:IX.3305, the following is an explanation for the establishment of internal outfalls. Certain permit effluent limitations at the point of discharge are impractical because at the final discharge point, the wastewater is diluted as to make monitoring impracticable. Therefore, in accordance with LAC33:IX.2709, the internal outfall described below will remain in the permit.

Internal Outfall 101

1. General Comments

   This outfall is the intermittent discharge of low volume wastewaters as defined by 40 CFR 423 including wastewater from the pH pond (reverse osmosis reject wastewater, reverse osmosis water, demineralizer/ regeneration water); stormwater from the north oil storage area and other portions of the plant property north of the generation units including the switchyard; and maintenance wastewaters including fire system wastewater and previously monitored hydrostatic test water.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/day
TOC	---	---	---	50	1/week
TSS	---	---	30	100	1/week
Oil & Grease	---	---	15	20	1/week
pH Standard Units	---	---	6.0 (min)	9.0 (max)	1/week

Flow - The flow requirements for reporting the monthly average flow and the daily maximum flow with the same monitoring frequency of once per day, when discharging have been retained from the current LPDES permit. The daily maximum flow is to be estimated using best engineering judgement. This requirement is consistent with LAC 33:IX.2707.I.1.b.

Total Organic Carbon - The current LPDES permit established a daily maximum limit of 50 mg/L for TOC. These limitations are retained with the same monitoring frequency of once per week by grab sample.

Total Suspended Solids - The current LPDES permit established a monthly average limit of 30 mg/L and a daily maximum limit of 100 mg/L for TSS in accordance with 40 CFR 423.12(b)(3). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Oil & Grease - The current LPDES permit established a monthly average limit of 15 mg/L and a daily maximum limit of 20 mg/L for oil & grease in accordance with 40 CFR 423.12(b)(3). These limitations are retained with the same monitoring frequency of once per week by grab sample.

pH - The current LPDES permit established a minimum limit of 6.0 standard units and a maximum limit of 9.0 standard units for pH in accordance with 40 CFR 423.12(b)(1). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Internal Outfall 102

1. General Comments

This outfall is the intermittent discharge of metal cleaning wastewaters (chemical and non-chemical)

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/day
Total Copper	---	---	1.0	1.0	1/week
Total Iron	---	---	1.0	1.0	1/week

Flow - The flow requirements for reporting the monthly average and daily maximum flow with a monitoring frequency of once per day, when discharging by estimate have been retained from the previous LPDES permit. This requirement is consistent with LAC 33:IX.2707.I.1.b.

Total Copper and Total Iron - The current LPDES permit established a monthly average limitation of 1.0 mg/L and a daily maximum limit of 1.0 mg/L for Total Copper and Total Iron in accordance with 40 CFR 423.12(b)(5). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Internal Outfall 107

1. General Comments

This outfall is the intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

PARAMETER(S)	MASS, LBS/DAY unless otherwise stated		CONCENTRATION, MG/L unless otherwise stated		MEASUREMENT FREQUENCY
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM	
Flow, MGD	Report	Report	---	---	1/discharge event
TSS	---	---	---	90	1/discharge event
Oil & Grease	---	---	---	15	1/discharge event
TOC	---	---	---	50	1/discharge event
Benzene	---	---	---	50 µg/L	1/discharge event
Total BTEX	---	---	---	250 µg/L	1/discharge event
Total Lead	---	---	---	50 µg/L	1/discharge event

Flow, TSS, Oil and Grease shall be measured on discharges from all new and existing pipelines, flowlines, vessels, or tanks. In addition, Total Organic Carbon (TOC) shall be measured on discharges from existing pipelines, flowlines, vessels, or tanks which have previously been in service; (i.e., those which are not new). Benzene, Total BTEX, and Total Lead shall be measured on discharges from existing pipelines, flowlines, vessels, or tanks which have been used for the storage or transportation of liquid or gaseous petroleum hydrocarbons.

Flow - This LPDES permit establishes a reporting requirement for monthly average flow and daily maximum flow once per event. These requirements are consistent with LAC 33:IX.2707.I.1.b and the LPDES General Permit for Hydrostatic Test Wastewater, LAG670000.

TSS - This LPDES permit establishes a daily maximum limitation of 90 mg/L in accordance with LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. The monitoring frequency is set at once per event by grab sample.

Oil & Grease - This LPDES permit establishes a daily maximum limitation of 15 mg/L in accordance with LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. The monitoring frequency is set at once per event by grab sample.

Total Organic Carbon (TOC) - This LPDES permit establishes a daily maximum limitation of 50 mg/L in accordance with LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. The monitoring frequency is set at once per event by grab sample.

Benzene, Total BTEX, and Lead - This LPDES permit establishes a daily maximum limitation of 50 µg/L for Benzene, 250 µg/L for Total BTEX, and 50 µg/L for Lead in accordance with LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. The monitoring frequencies are set at once per event by grab sample.

Part II Specific Conditions

PROHIBITION OF PCB DISCHARGES

As commanded by 40 CFR 423.12(b)(2), a Part II condition is retained in this draft permit prohibiting the discharge of polychlorinated biphenyl compounds.

"There shall be no discharge of polychlorinated biphenyls (PCB's). The minimum quantification level for PCB's is 1.0 µg/l. If any individual analytical test result for PCB's is less than the minimum quantification level, then a value of zero (0) shall be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements."

PROHIBITION OF 126 PRIORITY POLLUTANTS

There shall be no discharge of any 126 priority pollutants (40 CFR 423 Appendix A) associated with the chemicals added for cooling tower maintenance, except total chromium and total zinc. The minimum quantification levels for the 126 priority pollutants are found in Part II, Paragraph H.

CHEMICAL METAL CLEANING WASTE

The term *chemical metal cleaning waste* means any wastewater resulting from cleaning of any metal process equipment with chemical compounds, including, but not limited to, boiler tube cleaning.

METAL CLEANING WASTE

The term *metal cleaning waste* means any wastewater resulting from cleaning (with or without chemical cleaning compounds) any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

LOW VOLUME WASTE SOURCES

The term "low volume waste sources" means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations are otherwise established. Low volume waste sources include, but are not limited to: wastewaters from wet scrubber air pollution control systems, ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, and recirculating house service water systems. Sanitary and air conditioning wastewaters are not included.

TOTAL RESIDUAL CHLORINE

The term "total residual chlorine" (or total residual oxidants for intake water with bromides) means the value obtained using the amperometric method for total residual chlorine described in 40 CFR Part 136.

Total residual chlorine may not be discharged from any unit for more than two hours per day.

Simultaneous multi-unit chlorination is permitted.

TEMPERATURE

Daily temperature discharge is defined as the flow-weighted average (FWAT) and, on a daily basis, shall be monitored and recorded in accordance with Part I of this permit. FWAT shall be calculated at equal time intervals not greater than two hours. The method of calculating FWAT is as follows:

$$\text{FWAT} = \frac{\text{SUMMATION (INSTANTANEOUS FLOW X INSTANTANEOUS TEMPERATURE)}}{\text{SUMMATION (INSTANTANEOUS FLOW)}}$$

"Daily average temperature" (also known as average monthly or maximum 30 day value) shall be the arithmetic average of all FWATs calculated during the calendar month.

"Daily maximum temperature" (also known as the maximum daily value) shall be the highest FWAT calculated during the calendar month.

PERMIT REOPENER CLAUSE

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, or more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

2. Controls any pollutant not limited in the permit; or

3. Require reassessment due to change in 303(d) status of waterbody; or

4. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

316(b) PHASE II RULE REQUIREMENTS

- July 6, 2004, EPA promulgated 'Phase II' regulations in accordance with section 316(b) of the Clean Water Act (CWA).
- January 25, 2007, the Second U.S. Circuit Court of Appeals remanded several provisions of the Phase II rule.
- March 20, 2007, EPA issued a memo saying, "the rule should be considered suspended".
- July 9, 2007, Federal Register notice suspending all parts of the Phase II regulations except 40 CFR 125.90(b) [LAC 33:IX.4731.B]

LAC 33:IX.4731.B provides for regulating the cooling water intake structure (CWIS) for existing facilities on a case-by-case basis using best professional judgment.

This facility was issued a number of previous NPDES and/or LPDES permits and has been withdrawing once-through, non-contact cooling water without any identified problems since 1957. LDEQ has no information which either identifies or verifies any past or current adverse environmental impacts associated with the withdrawal of the applicable cooling water. The facility currently has 3 intake structures located on the shoreline of the Intracoastal Waterway and are equipped with traveling screens, curtain walls, trash racks, and fixed panel screens at each intake. LDEQ has made the determination that this CWIS represents the best technology available. This determination is based on current information available and will be re-evaluated either upon promulgation of revised 316(b) Phase II regulations or upon evaluation of the environmental impacts of their CWIS as described below, whichever becomes available first. The revised 316(b) Phase II regulation will supersede any requirements contained in the applicable permit. In addition LDEQ will require an evaluation of the environmental impacts of applicable CWIS as stated in the individual permits and as described in the following paragraphs:

The permittee shall comply with effective regulations promulgated in accordance with section 316(b) of the CWA for cooling water intake structures. The permittee also must evaluate the environmental impacts of their CWIS by characterizing the fish/shellfish in the vicinity of the CWIS and assessing impingement mortality and entrainment and shall submit the assessment results to LDEQ no later than four (4) years from the effective date of this permit. Based on the information submitted to LDEQ, the permit may be reopened to incorporate limitations and/or requirements for the CWIS.

Within one year of the effective date of this permit, the permittee must submit a plan to develop the information in Part II, paragraph R.3 of the permit. The plan must be submitted to DEQ for review and approval and must include an evaluation of existing data and/or collection of additional data to support the determination of 'baseline conditions' and current operational conditions.

The fish/shellfish impingement mortality and entrainment assessment must include the following:

1. Source water physical data including a narrative description, scaled drawings, identification and characterization of the source waterbody's hydrological and geomorphological features, methods used to conduct any physical studies to determine your intake's area of influence within the waterbody and the results of such studies, location maps showing the physical configuration of the source water body, and other documentation which supports your assessment of the water body;
2. Cooling water intake structure data including a narrative description of the configuration, location, engineering drawings, and operation of your CWIS, including design intake flow velocity; flow distribution, and water balance diagram that includes all sources of water to the facility, recirculating flows, and discharges;

3. Cooling water system data including a narrative description of the operation of your cooling water system, its relationship to the CWIS, the proportion of the design intake flow that is used in the system, the number of days of the year the cooling water system is in operation and seasonal changes in the operation of the system, if applicable;
4. Source water biological evaluation which includes the fish/shellfish assessment and the impingement mortality/entrainment assessment; and
5. An assessment of the cooling water system which includes a discussion or description of how structural or operational actions currently in place reduce adverse environmental impacts caused by your CWIS, and a discussion of additional structural or operational actions, if any, that have been reviewed or evaluated as possible measures to further reduce environmental impacts caused by your CWIS.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENT

In accordance with LAC 33:IX.2707.I.3 and 4, a Part II condition is proposed for applicability to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. **For first time permit issuance,** the Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. **For renewal permit issuance,** the Part II condition requires that the Storm Water Pollution Prevention Plan (SWP3) be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14.

XI. Compliance History/DMR Review:

A DMR review was completed for July 1, 2003 through June 30, 2008. The excursions are as follows:

DATE	PARAMETER	OUTFALL	REPORTED VALUE		PERMIT LIMITS	
			MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM
4/30/06	TSS	002	32.5	32.5	30	100
5/31/08	Oil & Grease	101	13.2	47.6	15	20

XII. Water Quality Considerations

Subsegment 041601, Intracoastal Waterway - From Inner Harbor Navigation Canal to Chef Menteur Pass (Estuarine) is listed on LDEQ's Final 2006 303(d) List as impaired for pathogen indicators. To date no TMDLs have been completed for these waterbodies. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Lake Pontchartrain Basin, those suspected causes for impairment which are not directly attributed to the steam electric power generating point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated. The discharge from this facility does not include sanitary wastewater therefore; the discharge from this facility does not have the potential to contribute to the pathogen indicator impairments.

XIII. Endangered Species:

The receiving waterbody, Subsegment 041601 of the Lake Pontchartrain Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

XIV. Historic Sites:

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

XV. Tentative Determination:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

XVI. Variances:

No requests for variances have been received by this Office.

XVII. Public Notices:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List